ATTACHMENT A
UNBUNDLED NETWORK ELEMENTS (UNES)

General.

This UNE Attachment (Attachment), sets forth the terms and conditions under which GTE will provide UNEs and combinations of UNEs (Combinations) to Pathnet pursuant to this Agreement. Unless otherwise specified in this Attachment, the ordering, provisioning, billing and maintenance of UNE offerings will be governed by the GTE Guide found on GTE's wise website (http://www.gte.com/wise). GTE will provide UNE offerings pursuant to this Attachment only to the extent they are Currently Available in GTE's network and on a first come, first serve basis. GTE will not construct new facilities to offer any UNE or Combinations. Pathnet shall not order services from GTE's resale, retail, or special access tariffs to circumvent or bypass, directly or indirectly, this no construction restriction. For example, except as otherwise expressly permitted pursuant to Applicable Law, Pathnet shall not convert services ordered out of such tariffs to UNEs or Combinations.

Notwithstanding anything to the contrary in this Agreement, the Parties do not waive, and hereby expressly reserve, their rights: (a) to challenge, or to continue to challenge, the legality and/or propriety of FCC Rule 51.319, the FCC UNE Remand Order (CC Docket No. 96-98, FCC 99-238), the FCC Line Sharing Order (CC Docket No. 96-98 and 98-147; FCC 99-355) and/or any other related FCC orders or rules, including, without limitation, the FCC Collocation Order in CC Docket No. 98-147 (released March 31, 1999) which was remanded and vacated in part by the United States Court of Appeals for the District of Columbia Circuit on March 17, 2000 (*See GTE Service Corporation, et. al v. Federal Communications Commission and United States of America*, No. 99-1176, *consolidated with* No. 99-1201, 2000 U.S. App. LEXIS 4111 (D.C. Cir. 2000)); (b) to continue to prosecute the current appeal of the FCC pricing rules pending before the Eighth Circuit Court of Appeals; (c) to assert or to continue to assert that certain provisions of the FCC's First, Second, Third and Fourth Report and Order in FCC Docket No. 96-98 and other FCC orders or rules are unlawful, illegal and improper; (d) to assert that modifications to this Attachment from a pricing and/or policy standpoint may be necessary to address or account for the use of line sharing for the provision of Voice Service, including, without limitation, 'voice over IP' or 'voice over DSL' service; and (e) to take any appropriate action based on the outcome of any of the actions or challenges described in subsections (a)-(d) above or any other actions. The provisions of this Section shall survive the termination, rescission, modification or expiration of this Agreement without limit as to time.

The Parties understand that both industry and GTE standards and processes applicable to UNEs and Combinations, including, without limitation, loop qualification, ordering, provisioning, fully automated OSS interfaces and other facets of OSS, are still being developed. Accordingly, the Parties agree to cooperate in any reasonable arrangement designed to facilitate the development of such standards and processes, and to document the same for purposes of this Agreement, as necessary and appropriate.

The UNEs, including Combinations, hereunder shall only be made available and shall only be used, for the provision of Telecommunication Service, as that term is defined by the Act.

Description of Individual UNE Offerings.

GTE will provide Pathnet with the following UNEs pursuant to this Attachment:

1.1 Local Loops.

The local loop UNE is defined as the transmission facility (or channel or group of channels on such facility) that extends from a Main Distribution Frame (MDF), or its equivalent, in a GTE Central Office Switch or Wire Center up to and including the loop "demarcation point", including inside wire owned by GTE. The loop demarcation point is that point on the loop facility where GTE's ownership and control end and the subscriber's ownership and control begin. Generally, loops are provisioned as 2-wire or 4-wire copper pairs running from the Central Office Switch MDF to the subscriber's premises. However, a loop may be provided via other means, including radio frequencies, as a channel on a high-capacity feeder/distribution facility which may, in turn, be distributed from a node location to the subscriber's premises via a copper or coaxial drop or other facility. The loop includes all features, functions and capabilities of such transmission facilities, including attached electronics (except those electronics used for the provision of advanced services, such as digital subscriber line access multiplexers ("DSLAMs")) and line conditioning. The types of unbundled loops made available to Pathnet under this Attachment are:

1.1.1 "2-Wire Analog Loop" is a voice grade transmission facility that is suitable for transporting analog voice signals between approximately 300-3000 Hz, with loss not to exceed 8.5 db. A 2-wire analog loop may include load coils, bridge taps, etc. This facility also may include carrier derived facility components (i.e., pair gain applications, loop concentrators/multiplexers). This type of unbundled loop is commonly used for local dial tone services. GTE does not guarantee data modem speeds on a 2-wire analog loop. In addition, GTE does not guarantee CLASS features will perform properly on a 2-wire analog loop provisioned over subscriber analog carrier.

1.1.2 "4-Wire Analog Loop" conforms to the characteristics of a 2-wire voice grade loop and, in addition, can support simultaneous independent transmission in both directions. GTE does not guarantee data modem speeds on a 4-wire analog loop. In addition, GTE does not guarantee CLASS features will perform properly on a 4-wire analog loop provisioned over subscriber analog carrier.

1.1.3 ISDN-BRI Capable Loop is capable of transmitting digital signals up to 160 kbps with no greater line loss than 36 db end-to-end measured at 40 kHz. When the loop length extends beyond the limitations of basic ISDN-BRI service line loss levels will be provisioned at no greater than 76 db at 40 kHz. Dependent upon facility make-up it may be necessary to add ISDN-BRI Line Loop Extension to bring the line loss level within acceptable levels. ISDN-BRI Line Loop Extension equipment can be added by GTE if requested by the CLEC at an additional cost beyond those of the unbundled loop element itself.

1.1.4 A 2-wire ADSL Capable Loop must be provisioned over copper facilities and will contain no load coils and minimum allowable bridge tap. Additional loop conditioning charges shall apply for the removal of the aforementioned types of equipment. In additional, when utilizing ADSL technology, the CLEC is responsible for limiting the Power Spectral Density (PSD) of the signal to levels specified in Clause 6.13 of the ANSI T1.413 ADSL Standard. The CLEC is responsible for supplying the electronics necessary for providing ADSL service to their Customer.

1.1.5 “4-Wire Digital Loop” is a transmission facility that is suitable for the transport of digital signals at rates up to 1.544 Mbps. 4-wire digital loops are only provisioned on copper facilities. When a 4-wire digital loop is used by Pathnet to provision HDSL technology, the insertion loss, measured between 100W termination at 200 kHz, in which case loss should be less than 34 db. The DC resistance of a single wire pair should not exceed 1100 ohms.

1.1.6 “DS-1 Loops” will support a digital transmission rate of 1.544 Mbps. The DS-1 loop will have no bridge taps or load coils and will employ special line treatment. DS-1 loops will include midspan line repeaters where required, office terminating repeaters, and DSX cross connects.

1.1.7 “DS-3 Loops” will support the transmission of isochronous bipolar serial data at a rate of 44.736 Mbps. The DS-3 loop provides the equivalent of 28 DS-1 channels and shall include the electronics at either end.

1.1.8 ““Dark Fiber Loops” consist of any unused fiber strands that exist between the fiber splice tray, or its functional equivalent, located within the GTE Central Office Switch, and the fiber splice tray or fiber patch panel located within a Customer premise that has not been activated through connection to the electronics that “light” it, and thereby render it capable of carrying communications services. In addition to the other terms and conditions of this Attachment, the following terms and conditions also shall apply to Dark Fiber Loops:

A. GTE shall be required to provide Dark Fiber Loop only where (1) one end of the Dark Fiber Loop terminates at Pathnet's collocation point of interface/demarcation/connection, and (2) the other end terminates at the Customer premise.

B. At the Central Office Switch, unused fibers located at a fiber splice point in a cable vault or a controlled environment vault, manhole or other location outside the Central Office Switch or GTE premises, and not terminated to a fiber splice tray within the Central Office Switch or GTE Premises, are not available to Pathnet.

C. At the Customer premise, unused fibers are not available to Pathnet pursuant to this Attachment unless such fibers terminate on a fiber patch panel, or are available in a fiber splice tray, within the Customer premise. Unused fibers located in fiber splice point located outside the Customer premise are not available to Pathnet.

D. Dark Fiber will be offered to Pathnet on the condition that it is found in GTE's network at the time that Pathnet submits its request (i.e., "as is"). GTE shall not be required to convert lit fiber to Dark Fiber for Pathnet's use.

E. Spare wavelengths on fiber strands, where Wave Division Multiplexing (WDM) or Dense Wave Division Multiplexing (DWDM) equipment is deployed, are not considered to be spare Dark Fiber Loops and, therefore, will not be offered to Pathnet as dark fiber.

F. Pathnet shall be responsible for providing all transmission, terminating and regeneration equipment necessary to light and use Dark Fiber.

G. Pathnet may not resell Dark Fiber purchased pursuant to this Attachment to third parties.

H. In order for GTE to continue to satisfy its carrier of last resort (COLR) obligations under state law and/or to preserve the efficiency of its network, GTE will limit Pathnet to leasing a maximum of twenty-five percent (25%) of the Dark Fiber in any given segment of GTE's network during any two-year period. In addition, GTE may take either of the following actions, notwithstanding anything to the contrary in this Attachment:

- Revoke Dark Fiber leased to Pathnet upon a showing of need to the Commission and twelve (12) months' advance written notice to Pathnet; and

- Revoke Dark Fiber leased to Pathnet upon a showing to the Commission that Pathnet underutilized fiber (less than OC-12) within any twelve (12) month period.

Pathnet may not reserve Dark Fiber.

1.2 Subloops

The Subloop UNE is defined as any portion of the loop that is technically feasible to access at the terminals (access terminals) in GTE's outside plant, including inside wire. An access terminal is any point on the loop: (i) where technicians can access the wire or fiber within the cable without removing a splice case to reach the wire or fiber within; and (ii) that contains cables and their respective wire pairs that terminate on screw posts. To the extent they qualify under the preceding sentence, such points may include, but are not limited to, the pole or drop pedestal, network interface device (NID), minimum point of entry, single point of interconnection, the MDF, the remote terminal, and the feeder/distribution interface. In addition, subject to the requirements and limitations of the Collocation Attachment, Pathnet has the option of collocating a DSLAM (or its functional equivalent) in GTE's remote terminal (RT) at the fiber/copper interface point. When Pathnet collocates its DSLAM at GTE's RT, GTE will provide Pathnet with access to subloop UNEs to allow Pathnet to access the copper portion of the loop. The Subloop UNEs made available to Pathnet under this Attachment are:

1.2.1 "Feeder Subloop UNE" is a transmission path extending from the MDF located in GTE's Central Office Switch or Wire Center to the feeder distribution interface (FDI), or its functional equivalent, at a GTE cross-connect box. Feeder Subloop UNEs may be configured as "2-Wire Feeder" or "4-Wire Feeder", both of which may include load coils, bridge taps, etc. When utilizing ADSL technology, Pathnet is responsible for limiting the Power Spectral Density (PSD) of the signal to the levels specified in Clause 6.13 of ANSI T1.413 ADSL Standard. GTE will not provide the electronics required for Pathnet to provide xDSL service.

1.2.2 "Distribution Subloop UNE" is a transmission path extending from the FDI, or its functional equivalent, at a GTE cross-connect box, up to and including the demarcation point at an end user's premise. Unbundled Subloop Distribution Elements may be configured as "2-Wire Distribution" or "4-Wire Distribution", both of which may include carrier derived facility components (i.e., pair gain applications, loop concentrators/multiplexers). Distribution Elements are not available to Pathnet where GTE has provisioned its local network utilizing Digital Subscriber Technology (DAMLs). When utilizing ADSL technology, Pathnet is responsible for limiting the PDS of the signal to the levels specified in Clause 6.13 of ANSI T1.413 ADSL Standard. GTE will not provide the electronics required for Pathnet to provide xDSL service.

1.2.3 "Drop Subloop UNE" is a transmission path extending from a terminal, such as a pole or pedestal, to the end user premise. Drop Subloop UNEs will be offered on a per pair basis.

1.2.4 "Dark Fiber Feeder Subloop UNE" is any unused fiber strands that exist between the fiber splice tray, or its functional equivalent, located within the GTE Central Office Switch, and the fiber splice tray or fiber patch panel located at the GTE remote hut or DLC or controlled environmental hut (CEV) or accessible terminal where Pathnet has a point of interconnection. Unused fibers in the feeder portion of the loop that are located in a fiber splice point outside the Central Office Switch or remote hut/DLC/CEV are not available to Pathnet pursuant to this Attachment. To the extent applicable, the same terms and conditions regarding Dark Fiber Loop UNEs set forth in Section 2.1(g) shall govern Dark Fiber Feeder Subloop UNEs.

1.2.5 "Dark Fiber Distribution Subloop UNE" is any unused fiber strands that exist between the fiber splice tray or patch panel located at the GTE remote hut/DLC/CEV, where Pathnet has established a point of interconnection, and the fiber splice tray or fiber patch panel located at the Customer premise. Unused fibers in the distribution portion of the loop that are located in a fiber splice point outside the Customer premise or remote hut/DLC/CEV are not available to Pathnet pursuant to this Attachment. To the extent applicable, the same terms and conditions regarding Dark Fiber Loop UNEs set forth in Section 2.1(g) shall govern Dark Fiber Distribution Subloop UNEs.

1.3 Inside Wire.

The Inside Wire UNE is defined as all loop plant owned by GTE on a Customer premises as far as the point of demarcation.

1.4 Network Interface Device (NID).

The NID UNE is defined as any means of interconnection of Customer inside wiring to GTE's distribution plant. To gain access to a Customer's inside wiring, Pathnet may connect its own loop directly to GTE's NID where Pathnet uses its own facilities to provide local service to a Customer formerly served by GTE, as long as such direct connection does not adversely affect GTE's network.

1.5 Local Circuit Switching.

The local circuit switching UNE is defined as: (i) line-side facilities, which include, but are not limited to, the connection between a loop termination at a main distribution frame and a switch line card; (ii) trunk-side facilities, which include, but are not limited to, the connection between trunk termination at a trunk-side cross-connect panel and a switch trunk card; and (iii) all features, functions and capabilities of the switch. GTE reserves the right not to provide circuit switching and shared transport as a UNE under the circumstances described in Rule 51.319(c)(2). At Pathnet's request, GTE will make available the following types of Circuit Switching as UNEs:

1.5.1 Analog Line Side Port. An analog line side port[1] is a line side switch connection used to provide basic residential- and business-type exchange services.

1.5.2 ISDN BRI Digital Line Side Port. An ISDN BRI digital line side port is a basic rate interface (BRI) line side switch connection used to provide ISDN exchange services.

1.5.3 Coin Line Side Port. A coin line side port is a line side switch connection used to provide coin services.

1.5.4 DS-1 Digital Trunk Side Port. A DS-1 digital trunk side port is a trunk side switch connection used to provide the equivalent of 24 analog incoming trunk ports.

1.5.5 ISDN PRI Digital Trunk Side Port. An ISDN PRI digital trunk side port is a primary rate interface (PRI) trunk side switch connection used to provide ISDN exchange services.

1.6 Local Tandem Switching.

The Local Tandem Switching UNE is defined as: (i) trunk-connect facilities, which include, but are not limited to, the connection between trunk termination at a cross connect panel and switch trunk card; (ii) the basic switch trunk function of the connecting trunks to trunks; and (iii) the functions that are centralized in tandem switches (as distinguished from separate Central Office Switches), including but not limited to call recording, the routing of calls to operator services, and signaling conversion features.

1.7 Packet Switching.

The Packet Switching UNE is defined as the basic packet switching function of routing or forwarding packets, frames, cells or other data units based on address

[1] A Port provides for the interconnection of individual Loops to the switching components of GTE's network. In general, the port is a line card or trunk card and associated peripheral equipment on a GTE Central Office Switch that serves as the hardware termination for the Customer's Exchange Service on that switch, generates dial tine, and provides the end-user access to the Public Switched Telecommunications Network (PSTN). Each line-side port is typically associated with on e(or more) telephone numbers(s), which serve as the Customer's network address. A port also includes local switching, which provides the basic switching functions to originate, route and terminate traffic and any signaling deployed in the Central Office Switch. When Pathnet orders and unbundled port, the Pathnet has the option to submit a Directory Service Request (DSR) to have the listings included in GTE's Directory Assistance database. The applicable ordering charge will be applied for processing the DSR. GTE will honor Pathnet Customers' preferences for listing status, including non-published and unlisted, and will enter the listing in the GTE database which is used to perform DA functions as it appears on the LSR.

or other routing information contained in the packets, frames, cells or other data units, and the functions that are performed by the DSLAM. GTE reserves the right to provide packet switching as an UNE only under the circumstances described in Rule 51.319(c)(5).

1.8 Dedicated Transport.

The Dedicated Transport UNE is defined as GTE interoffice transmission facilities, including all technically feasible capacity-related services, including, but not limited to, DS1, DS3 and OCN levels, dedicated to a particular Customer or carrier, that provide telecommunications between Wire Centers owned by GTE or Pathnet, between Central Office Switches owned by GTE or Pathnet.

1.9 Dark Fiber Transport.

The Dark Fiber Transport UNE is defined as dedicated unused fiber strands that exist at the fiber splice tray, or its functional equivalent, located within the Central Office Switch, without attached multiplexing, aggregation or other electronics. To the extent applicable, the same terms and conditions regarding Dark Fiber Loop UNEs set forth in Section 2.1(g) shall govern Dark Fiber Transport UNE.

1.10 Shared Transport.

The Shared Transport UNE is defined as interoffice transmission facilities shared by more than one carrier, including GTE, between Central Office Switches, between Central Office Switches and tandem switches, and between tandem switches, in GTE's network. Shared transport (also known as common transport) provides the shared use of interoffice trunk groups and tandem switching that are used to transport switched traffic, originating or terminating on a GTE port, between Central Office Switching entities. Shared transport will include tandem switching if GTE's standard network configuration includes tandem routing for traffic between these points. Shared transport is provided automatically in conjunction with port and local circuit switching. GTE reserves the right not to provide circuit switching and shared transport as an UNE under the circumstances described in Rule 51.319(c)(2).

1.11 Signaling Networks.

The signaling network UNE is defined as access to GTE signaling networks and signaling transfer points. SS7 transport and signaling shall be provided in accordance with the terms and conditions of a separately executed agreement, or via GTOC Tariff FCC No. 1.

1.12 Call-Related Databases.

The Call-Related Databases UNE is defined as access to a database, other than operations support systems (OSS), that are used in signaling networks for billing and collection, or the transmission, routing, or other provision of a Telecommunications Service. These databases include the calling name database, 911 database, E-911 database, line information database, toll free (800 type services) calling database, advanced intelligent network database and downstream number portability databases that are provided by means of physical access at the signaling transfer point linked to the unbundled databases. LIDB services and database 800 type services shall be provided in accordance with the rates, terms and conditions of GTOC Tariff FCC No. 1. GTE reserves the

right not to unbundled the services created in the AIN platform and architecture that qualify for proprietary treatment.

1.13 Service Management Systems.

The Service Management Database System UNE is defined as a computer database or system not part of the public switched network that: (i) interconnects to the service control point and sends to that service control point the information and call processing instructions needed for a network switch to process and complete a telephone call and (ii) provides telecommunications carriers with the capability of entering and storing data regarding the processing and completing of a telephone call.

1.14 OS/DA. The OS/DA UNE is defined as: (a) any automatic or live assistance to a consumer to arrange for billing or completion, or both, of a telephone call (OS); and (b) a service that allows subscribers to retrieve telephone numbers of other subscribers (DA). In accordance with Rule 51.319(f), GTE will not provide OS/DA as a UNE when it offers customized routing. Where Pathnet provides its own OS/DA platform, Pathnet is required to route its OS/DA traffic to its platform over customized routing. Upon written request, GTE will provide Pathnet a list of Central Office Switches that can provide customized routing using line class codes or similar method (regardless of current capacity limitations). Pathnet will return a written list of these switches ranked in priority order. GTE will return to Pathnet a schedule for customized routing in the Central Office Switches with existing capabilities and capacity. In response to Pathnet's written request, GTE will also provide Pathnet with applicable charges, and terms and conditions, for providing OS and DA, branding, and customized routing. Subject to the above provisions, GTE will choose the method of implementing customized routing of OS/DA calls. When GTE offers customized routing to Pathnet, Pathnet will be responsible for the transport to route OS/DA traffic to the designated platform. If a dedicated transport UNE is used to route OS/DA traffic to the designated platform, Pathnet must purchase a trunk side port and establish a collocation arrangement in accordance with the Collocation Attachment. If the dedicated transport UNE used to route OS/DA traffic to the designated platform is ordered out of the applicable access tariff, no collocation arrangement or trunk side port is required.

1.15 OSS.

The OSS UNE is defined as operations support system functions consisting of pre-ordering (including nondiscriminatory access to the same detailed information about loop qualification information that is available to GTE), ordering, provisioning, maintenance and repair, and billing functions supported by GTE's databases and information. Until such time as a real-time, electronic-like interface is made available to Pathnet by GTE, GTE shall enable Pathnet to perform all pre-ordering and ordering functions via a Web Graphical User Interface (GUI), including accessing said loop qualification information. This Web GUI will provide Pathnet access to the same information which GTE provides to itself in order to allow Pathnet to determine if a loop is available and qualifies for service based on the end user's telephone number or street address, including the following:

1.15.1 The composition of the available loop material (including, without limitation, fiber optics and copper);

1.15.2 The existence, location and type of electronic or other equipment on the loop (including, without limitation, DLC or other remote concentration devices, feeder/distribution interfaces, bridged taps, load coils, pair gain devices, repeaters, remote switching units, range extenders, AMI T-1s in the same or adjacent binder groups, and other potential disturbers);

1.15.3 Loop length, including the segment length and location of each type of transmission media;

1.15.4 Loop length by wire gauge; and

1.15.5 The electrical parameters of the loop.

At such time as OBF has established standards for pre-order loop qualification, the Parties will cooperate to implement pre-order loop qualification functions based upon such standards.

1.16 Line Sharing.

1.16.1 General. The Line Sharing UNE is defined as access to the frequency range above the voiceband on a copper loop facility that is being used to carry analog circuit-switched voiceband transmissions. Upon written request by Pathnet or GTE, the Parties shall engage in further good faith negotiations regarding, and take all reasonable steps necessary to ensure, the implementation of line sharing as an UNE. In accordance with par. 161 of the Line Sharing Order, GTE may not be able to make Line Sharing available as an UNE before June 6, 2000

1.17 Combinations.

GTE will offer Combinations where the elements are already combined in GTE's network, subject to the limitations, requirements and restrictions of applicable law, including, without limitation, Rule 51.319, the Line Sharing Order, the UNE Remand Order and the Act. GTE is no longer required to provide OS/DA as an UNE where GTE offers customized routing. Nevertheless, GTE will continue to provide OS/DA based on market rates (see Appendix D) until the Parties negotiate a separate OS/DA agreement. In the alternative, Pathnet can obtain an alternative provider. In addition, Pathnet may not use any Combination as a substitute for special access service pending the FCC's resolution of this issue in its Fourth FNPRM in Docket No. 96-98. Pathnet shall not have physical access to the combined UNEs in GTE's premises. However, Pathnet may use Combinations to provide a significant amount of local exchange service, in addition to exchange access service, to a particular Customer. Subject to the foregoing limitations and restrictions and the other terms and conditions herein, Pathnet may order the following standard Combinations pursuant to this Attachment:

1.18 UNE Basic Analog Voice Grade Platform, which consists of:

1.18.1 UNE 2-Wire Loop;

1.18.2 UNE Basic Analog Line Side Port; and

1.18.3 UNE Shared Transport.

1.19 UNE ISDN BRI Platform, which consists of:

1.19.1 UNE 2-Wire Digital Loop;

1.19.2 UNE ISDN BRI Digital Line Side Port; and

1.19.3 UNE Shared Transport.

1.20 UNE ISDN PRI Platform, which consists of:

1.20.1 UNE DS-1 Loop;

1.20.2 UNE ISDN PRI Digital Trunk Side Port; and

1.20.3 UNE Shared Transport.

1.21 UNE DS-1 Platform, which consists of:

1.21.1 UNE DS-1 Loop;

1.21.2 UNE DS-1 Digital Trunk Side Port; and

1.21.3 UNE Shared Transport.

Advanced services, including but not limited to the following are not offered in Combination arrangements: (a) Frame Relay; (b) ATM; (c) ADSL; and (d) AIN.

Operations Matters.

1.22 Ordering.

1.22.1 General. The ordering procedures for UNEs and Combination's are described in the GTE Guide found on GTE's wise website http://www.gte.com/wise). GTE will continue to participate in industry forums for developing service order/disconnect order formats and will incorporate appropriate industry standards. Complete and accurate forms (containing the requisite Customer information as described in the Guide) must be provided by Pathnet before a request can be processed. ASRs and/or LSRs submitted by Pathnet will be reviewed by GTE for validation and correction of errors. Errors will be referred back to Pathnet. Pathnet will then correct any errors that GTE has identified and resubmit the request to GTE electronically through a supplemental ASR/LSR. Pre-ordering does not guarantee the availability of a given UNE or Combination. Rather, GTE must receive a firm order after the pre-order to ensure Pathnet's access to the UNE or Combination ordered.

1.22.2 Dark Fiber. Pathnet shall order Dark Fiber Transport, Dark Fiber Loop and Dark Fiber Subloop UNEs by sending to GTE an ASR. When ordering dark fiber, Pathnet must order in pairs and at a minimum of two dark fiber strands per A to Z route unless Pathnet deploys DWDM, then individual fibers may be ordered. Each A to Z route request shall be made by separate ASR. An ASR Service Inquiry must be submitted in advance of a firm order to determine the availability of dark fiber on a specific route.

1.23 Unauthorized Changes.

If Pathnet submits an order for UNEs or Combinations under this Agreement in order to provide service to a Customer that at the time the order is submitted is obtaining its local services from GTE or another LEC using GTE resold services or unbundled elements, and the Customer notifies GTE that the Customer did not authorize Pathnet to provide local exchange services to the Customer, Pathnet must provide GTE with written documentation of authorization from that Customer within thirty (30) Business Days of notification by GTE. If Pathnet cannot provide written documentation of authorization within such time frame, Pathnet must within three (3) Business Days thereafter:

1.23.1 notify GTE to change the Customer back to the LEC providing service to the Customer before the change to Pathnet was made;

1.23.2 provide any Customer information and billing records Pathnet has obtained relating to the Customer to the LEC previously serving the Customer; and

1.23.3 notify the Customer and GTE that the change back to the previous LEC has been made.

Furthermore, GTE will bill Pathnet fifty dollars ($50.00) per affected line to compensate GTE for switching the Customer back to the original LEC.

1.24 Letter of Authorization.

GTE will not release the Customer service record (CSR) containing Customer proprietary network information (CPNI) to Pathnet on GTE Customer accounts unless Pathnet first provides to GTE a written Letter of Authorization (LOA). Such LOA may be a blanket LOA or other form agreed upon between GTE and Pathnet authorizing the release of such information to Pathnet or if state or federal law provides otherwise, in accordance with such law. A LOA will be required before GTE will process an order for UNEs or Combinations provided in cases in which the subscriber currently receives local exchange or Exchange Access service from GTE or from a local service provider other than Pathnet. Such LOA may be a blanket LOA or such other form as agreed upon between GTE and Pathnet.

1.25 Provisioning.

GTE agrees to provide UNEs and Combinations in a timely manner, considering the need and volume of requests, pursuant to service provisioning intervals which are at parity with the intervals for GTE's Customers of comparable services. GTE shall provide power to ordered UNEs and Combinations on the same basis as GTE provides power to itself. UNEs and Combinations will be provided only when facilities are Currently Available. If facilities are not Currently Available, Pathnet will be notified and the order will be rejected. The determination of whether or not facilities are Currently Available will be made on a case-by-case basis. GTE will use the following guidelines to determine if facilities are Currently Available to provision a requested UNE or Combination:

1.25.1 GTE will not place new interoffice facilities or outside plant feeder or distribution facilities.

1.25.2 GTE will not breach existing interoffice facilities, outside plant feeder or distribution facilities or Central Office Switch cabling or wiring to install new electronics or housing for plug-in electronic cards or modules. GTE will install new plug-in cards or modules when the housing already exists and is wired into the network.

1.25.3 In most circumstances, GTE will install drops and NIDs to connect outside plant facilities to a Customer's premises to provide a UNE loop. GTE will use the same procedures its uses to determine when a drop would routinely be installed for a GTE Customer or to determine if a drop will be installed for a UNE loop. Drops will not be installed when conditions such as excessive length, size of cable or use of fiber optics would require GTE outside plant construction personnel to install the drop.

1.25.4 GTE will not install new switches or augment switching capacity.

1.25.5 GTE will not install new software or activate software requiring a new right to use fee in switching equipment. GTE will activate software that is currently loaded in a switch but is not in use.

1.25.6 In certain situations, GTE utilizes pair gain technology, such as Integrated Digital Loop Carrier (IDLC)[2] or analog carrier, to provision facilities. GTE may not be able to provision a loop UNE in such cases. Where GTE can provision a Local Loop UNE using pair gain technology, the capabilities of such Local Loop UNE may be limited. If Pathnet orders a loop UNE that would normally be provisioned over facilities using pair gain technology, GTE will use alternate facilities to provision the loop UNE if alternate facilities are Currently Available. If alternate facilities are not Currently Available, GTE will advise Pathnet that facilities are not available to provision the requested loop UNE.

1.26 Bona Fide Request Process.

The Bona Fide Request (BFR) process shall be used when Pathnet requests certain services, features, capabilities or functionality defined and agreed upon by the Parties as services to be ordered via BFR. The following guidelines shall apply to the BFR process.

1.26.1 A BFR shall be submitted in writing by Pathnet and shall specifically identify the need to include technical requirements, space requirements and/or other such specifications that clearly define the request such that GTE has sufficient information to analyze and prepare a response.

1.26.2 Pathnet may cancel a BFR in writing at any time prior to Pathnet and GTE agreeing to price and availability. GTE will then cease analysis of the request.

1.26.3 Within five (5) Business Days of GTE's receipt of the BFR, GTE shall acknowledge in writing its receipt of same and identify a single point of contact and any additional information needed to process the request.

[2] *See* Telcordia Technologies TR-TSY-000008, Digital Interface Between the SLC-96 Digital Loop Carrier System and Local Digital Switch and TR-TSY-000303, Integrated Digital Loop Carrier (IDLC) Requirements, Objectives and Interface.

1.26.4 Except under extraordinary circumstances, within thirty (30) Business Days of GTE's receipt of the BFR, GTE shall provide a proposed price and availability date, or GTE will provide an explanation as to why GTE elects not to meet Pathnet's request. In cases of extraordinary circumstances, GTE will inform Pathnet as soon as it realizes that it cannot meet the thirty (30) Business Day response due date. Pathnet and GTE will then determine a mutually agreeable date for receipt of the request.

1.26.5 Unless Pathnet agrees otherwise, all proposed prices shall be consistent with the pricing principles of the Act, FCC and/or Commission. Payments for services purchased under a BFR will be made upon delivery, unless otherwise agreed to by Pathnet, in accordance with the applicable provisions of this Agreement.

1.26.6 Upon affirmative response from GTE, Pathnet will submit in writing its acceptance or rejection of GTE's proposal. If at any time an agreement cannot be reached as to the terms and conditions and/or price of the request GTE agrees to meet, the Dispute Resolution procedures described in Article II, Section 3 herein may be used by a Party to reach a resolution.

1.27 Connections.

1.27.1 General. With the exception of the Shared Transport UNE, the UNEs specified above may be directly connected to Pathnet facilities or to a third-party's facilities designated by Pathnet to the extent technically feasible. Direct access to loops, subloop, port and local switching, and dedicated transport, that terminates in a GTE premise, must be accomplished via a collocation arrangement in that premise. In circumstances where collocation cannot be accomplished in the premises, the Parties agree to negotiate for possible alternative arrangements. Removal of existing cable pairs required for Pathnet to connect service is the responsibility of Pathnet.

1.27.2 NID. In order to minimize adverse effects to GTE's network, the following procedures shall apply regarding NID connection:

B. When connecting its own loop facility directly to GTE's NID for a residence or business Customer, Pathnet must make a clean cut on the GTE drop wire at the NID so that no bare wire is exposed. Pathnet shall not remove or disconnect GTE's drop wire from the NID or take any other action that might cause GTE's drop wire to be left lying on the ground.

C. At multi-tenant Customer locations, Pathnet must remove the jumper wire from the distribution block (i.e., the NID) to the GTE cable termination block. If Pathnet cannot gain access to the cable termination block, Pathnet must make a clean cut at the closest point to the cable termination block. At Pathnet's request and discretion, GTE will determine the cable pair to be removed at the NID in multi-tenant locations. Pathnet will compensate GTE for the trip charge necessary to identify the cable pair to be removed.

D. GTE loop elements leased by Pathnet will be required to terminate only on a GTE NID. If Pathnet leasing a GTE loop wants to connect such loop to a Pathnet NID, Pathnet also will be required to lease a GTE NID for the direct loop termination and effect a NID-to-NID cross connection.

E. Rather than connecting its own loop directly to GTE's NID, Pathnet also may elect to install its own NID and effect a NID-to-NID cross connection to gain access to the Customer's inside wiring.

F. If Pathnet provides its own loop facilities, Pathnet may elect to move all inside wire terminated on a GTE NID to one provided by Pathnet. In this instance, a NID-to-NID cross connection will not be required. Pathnet, or the Customer's premise owner, can elect to leave the disconnected GTE NID in place, or to remove the GTE NID from the premises and dispose of it entirely.

G. GTE agrees to offer its NIDs to Pathnet for lease, but not for sale. Therefore, Pathnet may remove GTE identification from any GTE NID to which it connects a Pathnet loop, but Pathnet shall not place its own identification on such NID.

1.27.3 Dark Fiber Transport. Pathnet must have a collocation arrangement on each side of the transmission for Pathnet to gain access to Dark Fiber Interoffice Transport. GTE will terminate each end of the Dark Fiber Interoffice Transport at a fiber patch panel that has been connected to Pathnet's collocation arrangement via optical cross-connects. In addition, Pathnet must be collocated at any intermediate central office points where it plans on placing regenerative equipment.

1.27.4 Subloops. To gain access to a Feeder Subloop UNE, Pathnet must be collocated (subject to the terms and conditions of the Collocation Attachment and/or applicable GTE tariff) within the GTE Central Office Switch where the Feeder Subloop UNE is being requested. Pathnet must also be collocated at either a DLC or GTE cross-connect box where the Feeder Subloop UNE terminates.

H. To gain access to a distribution Subloop UNE, Pathnet must be collocated at either a DLC or cross-connect box that serves the Customer's address.

I. To gain access to a Drop Subloop UNE, Pathnet must be collocated at the terminal, such as a pole or pedestal, that serves the Customer's address.

1.28 Line Conditioning.

1.28.1 General For the charge(s) described on Appendix D, Pathnet may order conditioning of shared lines and those lines that are unbundled pursuant to this Attachment to remove load coils, bridge taps, low pass filters, range extenders and other devices to allow such lines to be provisioned in a manner that will allow for the transmission of digital signals required for ISDN and ADSL services, or, in the case of analog lines, to meet

specific transmission parameters. Dedicated transport may be conditioned for DS-1 clear channel capability.

1.29 Performance, Repair, Testing and Maintenance.

1.29.1 General. Upon Pathnet's request, and for the charge(s) described on Appendix D, GTE will test and report trouble for all features, functions, and capabilities of conditioned lines, subject to all of the following limitations and conditions:

J. Such testing must be technically feasible.

K. If Pathnet has directly connected its facilities to a loop, GTE will not perform routine testing of the loop for maintenance purposes. Pathnet will be required to perform its own testing and notify GTE of service problems. GTE will perform repair and maintenance once trouble is identified by Pathnet. If the loop is combined with dedicated transport, Pathnet will not have access to the loop in the Wire Center. In this case, GTE will perform routine testing of the loop and perform repair and maintenance once trouble is identified.

L. All loop facilities provided by GTE on the premises of Pathnet's Customers, up to the network interface or demarcation point, are the property of GTE. GTE must have access to all such facilities for network management purposes. GTE employees and agents may enter said premises at any reasonable hour to test and inspect such facilities in conjunction with such purposes or, upon termination or cancellation of the loop, to remove such facility.

M. If Pathnet leases loops that are conditioned to transmit digital signals, as part of that conditioning, GTE will test the loop UNE and provide recorded test results to Pathnet. In maintenance and repair cases, if loop tests are performed, GTE will provide any recorded readings to Pathnet at the time the trouble ticket is closed in the same manner as GTE provides the same to itself and/or its Customers

N. When Pathnet provides its own loop and connects directly to GTE's NID, GTE does not have the capability to perform routine maintenance. Pathnet can perform routine maintenance via its loop and inform GTE once the trouble has been isolated to the GTE NID and GTE will repair (or replace) the NID, or, at Pathnet's option, effect a NID-to-NID cross connection, using the GTE NID only to gain access to the inside wire at the Customer location.

1.30 Subloops.

Pathnet is responsible for all engineering requirements when provisioning service to an end user via Subloop UNEs. GTE does not guarantee, nor is it responsible for, the end-to-end performance of the entire loop when GTE provides only a portion of the loop. Furthermore, GTE is responsible for maintenance on only the

portion of the loop element that GTE provides. GTE will provide all Subloop UNEs to Pathnet in the same manner as GTE provides such elements to itself per existing GTE interface specifications, maintenance and administrative policies.

1.31 Loop Interference.

If Pathnet's deployment of service enhancing technology interferes with existing or planned service enhancing technologies deployed by GTE or other CLECs in the same cable sheath, GTE will so notify Pathnet and Pathnet will immediately remove such interfering technology and shall reimburse GTE for all costs and expenses incurred related to this interference.

Financial Matters.

1.32 Rates and Charges.

The monthly recurring charges (MRCs) and non-recurring charges (NRCs) applicable for the UNEs and Combinations, and related services made available under this Attachment are set forth in Appendix D attached hereto and made a part of this Attachment. Compensation arrangements for the exchange of switched traffic between Pathnet and GTE when Pathnet uses a GTE port, local switching and shared transport shall be as set forth in Appendix D.

1.33 Billing.

GTE will utilize CBSS to produce the required bills for UNEs ordered via the LSR process. This includes NIDs, subloops, loops, loops combined with port, ports and local switching, shared transport, and line sharing. State or sub-state level billing will include up to thirty (30) summary bill accounts. Timing of messages applicable to GTE's port and circuit switching UNEs (usage sensitive services) will be recorded based on originating and terminating access. GTE will utilize CABS to produce the required bills for UNEs and Combinations ordered via the ASR process. This includes dark fiber, dedicated transport and loops combined with dedicated transport.

1.33.1 Incollects. Incollects are calls that are placed using the services of GTE or another LEC or local service provider and billed to a UNE port, INP number, or LNP number of Pathnet. Examples of an incollect are collect and credit card calls. GTE will provide the rated record it receives from the CMDS network, or which GTE records (non-intercompany), to Pathnet for billing to Pathnet's Customers. GTE will settle with the earning company, and will bill Pathnet the amount of each incollect record less the Billing & Collection (B&C) fee for Customer billing of the incollects. The B&C credit associated with Pathnet's incollect messages that are incurred by GTE will be billed to Pathnet on the monthly statement.

1.33.2 Outcollects. Outcollects are calls that are placed using a Pathnet UNE port and billed to a GTE line or the line of another LEC or local service provider. Examples of an outcollect are collect and credit card calls. When the GTE Central Office Switch from which the UNE port is served utilizes a GTE operator services platform, GTE will provide to Pathnet the unrated message detail that originates from a Pathnet resale service line or UNE port, but which is billed to a telephone number other than the

originating number (e.g., calling card, bill-to-third number, etc.). As the local service provider, Pathnet will be deemed the earning company and will be responsible for rating the message at Pathnet's rates and for providing the billing message detail to the billing company for Customer billing. Pathnet will pay to GTE charges as agreed to for services purchased, and Pathnet will be compensated by the billing company for the revenue due to Pathnet. When a non-GTE entity provides operator services to the GTE Central Office Switch from which the resale line or UNE port is provisioned, Pathnet must contract with the operator services provider to obtain any EMI records required by Pathnet.

1.34 Measurement of Originating Usage.

GTE shall record usage data originating from Pathnet Customers that GTE records with respect to its own retail Customers, using services order by Pathnet. On UNE port accounts, GTE will provide usage in EMI format per existing file exchange schedules.

1.35 Measurement of Terminating Usage.

Until such time as industry standards are implemented for recording and measuring terminating local calls, the Parties agree to use factors to estimate terminating usage based on originating usage. Where originating usage cannot be measured, the Parties agree to use assumed minutes. The applicable factors and assumed minutes are set forth in Appendix D.

1.36 Switched Access Usage.

GTE will provide Pathnet switched access usage records (AURs) in EMI Category 11 format for those UNEs which contain this switched access usage component. Pathnet agrees to follow applicable industry standards for the meet-point billing of switched access usage as defined in MECAB.